REMARKS:

Claims 2-22 are pending, of which claims 2, 9 and 16 are independent claims. Claims 16-22 have been newly added.

Objections to the Specification

In response to the notice to file corrected application papers mailed September 4, 2008, Applicants filed a substitute specification. The notice objected to the original specification as being printed in a small font size. The substitute specification was a reprint of the original specification with a larger font size and had nothing added to or deleted from the original specification. Therefore, the substitute specification had nothing to be marked to show differences from the original speciation.

Please accept the substitute specification submitted on September 30, 2008 as a clean copy of the specification. Applicants are submitting herewith a marked up copy of the specification at Tab A, which in fact has no marks.

Claim Rejections under 35 USC 112

Claims 2-15 were rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner found that the "instruction analyzer" and "coefficient list maker" are tangible units, which are not explained in the specification or shown in the drawings.

In relation to Fig. 7, the specification explains in paragraph 56 that

"[t]he coefficient string constructor 22 has a function of constructing an original coefficient string from coefficient strings divided upon encoding by image encoding apparatus 10. The coefficient string constructor 22 is connected to block selector 24, acquires information about the size of the original block from the block selector 24, and constructs the original coefficient string on the basis of the information. The block selector 24 is able to acquire the size of the original block, based on additional information or the like transmitted with the encoded data from the image encoding apparatus."

In paragraph 56, the block selector 24 acquires information about the size of the original block, based on information from the image encoding apparatus.

Therefore, it is believed that "a reconstruction information receiver" recited in claim 2 is supported by the description of the specification and illustrated in Fig. 7.

Also, in paragraph 56, the coefficient string constructor 22 constructs an original coefficient string from coefficient strings divided upon encoding by image encoding apparatus 10, based on the information acquired by the block selector 24. Therefore, it is believed that "a coefficient list maker" recited in claim 2 is supported by the description of the specification and illustrated in Fig. 7.

Claim Rejections under 35 USC 103

Claim 2-15 were rejected under 35 USC 103(a) as being unpatentable over Thyagarajan et al. (US Patent No. 6,529,634) in view of Karczewicz et al (US Publication No. 2004/0066974). The Examiner admitted in the Office Action that Thyagarajan does not disclose or teach all of the claim limitations but turned to Karczewicz for the missing claim limitations.

Karczewicz qualifies as prior art against the present invention under 35 U.S.C. §102(e). Karczewicz was filed in the Office on October 3, 2002. On the other hand, the present application was filed on August 14, 2008 as a continuation application of United States Patent Application No. 10/680,205 filed on October 8, 2003, which claims priority to Japanese Patent Application No. JP 2002-295,429 filed in Japan on October 8, 2002.

First, Applicants herewith submit a certified translation of JP 2002-295,429 at Tab B to perfect the claimed priority to the Japanese application filed on October 8, 2002.

Applicants also submit at Tab C a 131 declaration by the inventors of the present application and associated Exhibits to prove prior invention. The declaration, along with Exhibit A, establishes the fact that prior to the effective date of Karczewicz, October 3, 2002, the inventors of the present applications prepared simulation programs and run the programs to test the performance of the present invention. As indicated in Exhibit A, the simulations implemented "CALVC for ABT" on three methodologies, "Split," "Real" and "Interleave." Practically, CALVC can be implemented only on 4x4 or 16 transform coefficients. However, under ABT, transform coefficients may take different block sizes, sometimes larger than 4x4. Therefore, in order to implement CALVC on a block of transform coefficient larger than 4x4, the block of transform coefficients has to be divided into multiple strings of

transform coefficients each having 16 transform coefficients the block of transform. "Split," "Real" and "Interleave" provide three different methodologies to divide a block of transform coefficients larger than 4x4. As also indicated in Exhibit A, "Interleave" denotes the present invention.

Please note that the invention "Interleave" discussed in Exhibit A was not just an idea but was completed with sufficient details. Exhibits C and D provide evidence that the present invention "Interleave" was sufficiently operational on a computer as of the date of Exhibit A. In fact, Exhibits C and D show some of the important claim limitations recited in the pending claims. More specifically, Applicants believe that Exhibit A, C and D explain the following claim limitations of independent claims, claims 2, 9 and 16:

(1) "acquiring information from an encoder regarding reconstruction of the blocks of transform coefficients" (Exhibit D shows that if the original block is 8x8, four 4x4 blocks are combined);

(2) "entropy-decoding the blocks of transform coefficients into decoded blocks of transform coefficients" (Exhibit A mentions Adaptive Block Size Transforms (ABT); and

(3) "according to the acquired reconstruction information, combining the transform coefficients of the decoded blocks into a first list of transform coefficients in which the transform coefficients of a respective decoded block are interleaved with the transform coefficients of another decoded block" (Exhibit D shows combining four 4x4 blocks of transform coefficients in an interleaving manner).

Using the simulation programs including the programs shown in Exhibits C and D, the inventors compared the performance of the present invention "Interleave" with those of other methodologies "Split" and "Real" to confirm that the present invention worked best among the three methodologies (See Exhibit B). Applicants therefore believe that the declarations and Exhibits A-D establish the fact that the present invention was already reduced to practice as of the date of Exhibit A prior to October 3, 2002. Thus, Karczewicz does not qualify as prior art against the present invention. Since Karczewicz is not prior art against the present invention, the present invention should be patentable over a combination of Thyagarajan and Karczewicz.

In case the Examiner disagrees with reduction to practice prior to October 3, 2002, Applicants alternatively assert conception of the present invention by the inventors prior to October 3, 2002, as evidenced by Exhibits A-D, and their continuing diligence through the date of constructive reduction to practice, which is October 8, 2002, as evidenced by Exhibits E-H. The declaration and Exhibit E establish that the inventors of the present application began on drafting the Japanese patent application for the present invention prior to October 3, 2002. As stated in the declaration, Mr. Adachi dedicated a significant amount of time to drafting the Japanese application and continued it every day from the date of Exhibit E through October 8, 2002 (See *Ex Parte Marois et al.*, 166 USPQ 413 (Pat. Off. Bd. App. 1970), finding efforts to prepare a patent application sufficient to establish diligence). Mr. Adachi was required to prepare as comprehensive and perfect a draft application as he could because he knew that Japanese counsel would have little time to prepare a formal patent application from Mr. Adachi's draft application.
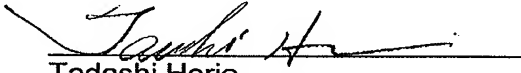
Exhibit F was a proposal to JVT requesting an adoption of the present invention. The content of the proposal was a derivation from the draft application completed as of October 5, 2002. Applicants believe that Exhibit F shows how far Mr. Adachi had advanced or how close Mr. Adachi was as of October 5, 2002 towards completing drafting of the patent application. Three days later, on October 8, 2002, Mr. Adachi completed the draft application. As evidenced by Exhibits G and H, the draft application discussed all of the claimed inventions. On the same day, the Japanese counsel prepared a formal application from Mr. Adachi's draft application and filed it in the Japanese Patent Office, which was later assigned Serial Number JP 2002-295,429.

Applicants believe that the declaration and the Exhibits establish the conception of the present invention prior to October 3, 2002 and the continuing diligence through October 8, 2002. Therefore, even if the Examiner disagrees with prior reduction to practice, Applicants believe that the declaration and the Exhibits still establish prior invention by the evidence of prior conception and continuing diligence. In any event, Karczewicz does not qualify as prior art against the present invention.

In the Office Action, The Examiner tried to combine Thyagarajan and Karczewicz. Thyagarajan is directed to Adaptive Block Size Cosine Transform

(ABSDCT). In ABSDCT, a block of pixels is partitioned into smaller blocks as shown in Fig. 3A, and DCT is performed on each of the smaller blocks (col. 4, lines 25-37). However, after DCT, the original block is scanned into one serialized stream of coefficients (col. 8, lines 13-16), on which entropy coding is performed. Therefore, there is nothing in Thyagarajan that discloses or teaches the idea that a block of transform coefficients is divided for entropy coding or the idea that blocks of transform coefficients are combined after entropy coding for DCT. Applicant believes that Thyagarajan could not have been combined by its nature with Karczewicz.

Respectfully submitted,

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Tab B